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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,086	06/30/2003	William Earl Russell II	24GA5998-7	8107

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EXAMINER
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PALABRICA, RICARDO J

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/608,086

Applicant(s)

RUSSELL ET AL.

Examiner

Rick Palabrica

Art Unit

3641

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 10 February 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.


Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments that the claims are neither anticipated or obvious over Takeuchi or Musick are not convincing. The Examiner, however, agrees to withdraw the rejection of claims under 35 U.S.C. 112, 1st and 2nd paragraphs in sections 4 and 5 of the 11/10/04 Final Office Action, based on the reasons given in Applicant's reply and the amendment of the preamble of claim 31.

The Applicant alleges that contrary to claim 31, there is no optimization process performed by Takeuchi. The Examiner disagrees, as stated in the 11/10/04 Final Office Action and further clarified herein. The term, "optimization" is defined in the dictionary as, "[A]n act, process, or methodology of making something (as a design, system or decision) as fully perfect, functional, or effective as possible." (See Merriam Webster's Collegiate Dictionary, 10<sup>th</sup> edition, 1993). Applicant himself states in the specification that his invention "would be capable of performing a comprehensive nuclear reactor plant operations optimization process that would identify most, if not all, of the appropriate changes/modifications in operational control variable that are needed to result in improved fuel cycle efficiency, better global reactor economics and enhanced operational flexibility."

Takeuchi teaches that in a nuclear power plant, an operator monitors gauges or other displays indicating the status of various operating conditions in the plant to determine appropriate modifications on how the plant is controlled. However, there is no existing way to provide the operator with an expert's response whenever changes occur in plant data (see col. 1, lines 18+). Takeuchi's invention provides the operator with an expert's analysis of current operating data, determine the probabilities of existence of abnormal circumstances and predict the likelihood of future events based on said current data (see col. 1, lines 36+). Thus, Takeuchi's expert system provides an optimization that meets the ordinary definition of "optimization" because it allows the operator to maintain the plant within operating limits, prevent occurrence of scrams, and thereby make the operations fully functional or effective. Also, by assisting the operator keep the plant within operating and licensing limits, Takeuchi's expert system avoids abnormal events, costly shutdowns and potential regulatory investigations and/or enforcement penalties, thereby meeting the objective of Applicant's claimed process, i.e., improved fuel cycle efficiency, better global reactor economics and enhance operational flexibility.

As to the Applicant's traverse of Musick, the Examiner disagrees for reasons similar to that given above for Takeuchi.

Based on the above, the process of Takeuchi and/or Musick read on Applicant's claims, as stated in the 11/10/04 Office Action. Examiner therefore maintains the rejection of claims based on the art of record.



MICHAEL J. CARONE  
SUPERVISORY PATENT EXAMINER